REMARKS

Claims 1-9, 36-37, and 59-68 stand rejected in the Office Action dated March 11, 2009. Claims 1-7 and 59-66 stand rejected under 35 U.S.C. §102, and claims 8, 9, 36, 37, 67, and 68 stand rejected under 35 U.S.C. §103. The independent claims under present consideration are claims 1, 36, 59, and 69. Applicants have amended claim 36, and claims 16-35, 42-58, and 69 were previously withdrawn from consideration. Therefore, following entry of the present response, claims 1-69 will be pending in the present application with claims 16-35, 42-58, and 69 withdrawn from consideration.

Claim Rejections – 35 U.S.C. §102(e)

Claims 1-7 and 59-66 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,849,040 ("Ruohonen").

Applicants would like to thank the Examiner for pointing out that claims 10-15 would be allowable if rewritten to include all of the limitations of the base claims. However, each of these claims depend, either directly or indirectly, from independent claim 1. Based on the following reasons for allowability of claim 1, Applicants submit that claims 10-15 are likewise in condition for allowance.

The claims recite a TMS coil for using a magnetic field to provide transcranial magnetic stimulation (TMS) treatment to a patient. A sensor is located between the TMS coil and the patient where pulses are to be applied to detect the proximity of the TMS coil to the position. The sensor assists in a proper disposal of the TMS coil with respect the position.

The office action likens Ruohonen's fiducials to the recited sensor. However, Applicants respectfully disagree because Ruhonen's fiducials are not the same as the claimed sensor.

First, the claimed sensor is disposed ***between*** the coil and a position at which pulses are applied. In contrast to the claimed sensor, Ruohonen's fiducials are markers that are placed on the patient and on the coil device. Ruohonen's fiducials merely provide positional data by providing the position of each fiducial in the three-dimensional space. Nowhere does Ruohonen teach that the fiducials are disposed ***between*** the coil and the position at which pulses are applied, nor is this arrangement pertinent to the function of Ruohonen's device.

Rather, Ruohonen's fiducials merely need to be placed around a user's head or around the coil (Ruohonen, col. 3, lines 7-8).

Furthermore, the claimed sensor detects the proximity of the TMS coil to the position to which pulses are to be applied. In contrast, Ruohonen's fudicials are not sensors that ***detect*** proximity of a TMS coil to the position as suggested by the Office Action. Instead, Ruohonen's fiducials are ***position*** sensors that can detect and provide a position in space. Positional data is used to generate a model of the user's head and/or the coil in the three-dimensional space. For example, positions provided by each of three fiducials placed around a user's head can be used to generate a model of the head position in the three-dimensional space. Similarly, the positions provided by three fiducials placed around a coil can be used to generate a model of the coil position in the three-dimensional space. The models may be compared to indicate when the fiducials in space are positioned relative to each other such that the field generated by the coil in the detected position will intersect with the modeled position of the head (Ruohonen, col. 4, lines 6-12; col. 4, lines 48-51).

However, Ruohonen's fiducials do not themselves detect the proximity of the TMS coil to the position at which pulses are to be applied. Rather, Ruohonen's fiducials merely provide position inputs.

Therefore, because Ruohenen fails to disclose a sensor disposed between the TMS coil and the position at which pulses are to be applied, where the sensor detects proximity of the TMS coil to the position, Applicants respectfully submit that Ruohenen does not anticipate either of claims 1 or claim 59.

Accordingly, Applicants respectfully submit that the claims that depend from claim 1, presently rejected claims 2-7 and allowable claims 10-15, and the claims that depend from claim 59, claims 60-66, also patentably define over the cited reference. Applicants request withdrawal of the rejection of claims 1-7 and 59-66 under 35 U.S.C. 103(a) and withdrawal of the objection to allowable claims 10-15.

Claim Rejections – 35 U.S.C. §103(a)

Claim 36-41

Independent Claim 36 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pub. No. 2001/0002441 ("Boveja"). Claim 37, which depends from claim 36,

stands rejected under 35 U.S.C. §103(a) as being unpatentable over Boveja in view of U.S. Pub. No. 2004/0167592 ("Grove").

Applicants would like to the Examiner for pointing out that claims 38-41 would be allowable if rewritten to include all of the limitations of the base claims. However, each of these claims depend, either directly or indirectly, from independent claim 36. Based on the following reasons for allowability of claim 36, Applicants submit that claims 38-41 are likewise in condition for allowance.

Claim 36 recites a device that detects the proximity of a TMS coil to a position of a patient during TMS patient, where a sensor is disposed on a flexible substrate. Applicants have presently amended claim 36 to clarify that the use of the magnetic field applies to the use of a magnetic field ***for the TMS treatment***. This feature, added to claim 1 in Applicants previous reply dated 1/28/09, is recognized in the present office action as patentable over Boveja. In particular, the office action recognizes, with respect to claim 1, that nowhere does Boveja teach or suggest the use of a coil for treatment of a patient using a magnetic field much less for the recited treatment involving transcranial magnetic stimulation. Because the present office action asserts that claim 36 is not interpreted as using the magnetic field ***for treatment*** as interpreted with respect to claim 1, Applicants have amended claim 36 to clarify such feature. Therefore, because Boveja does not disclose the features recited in claim 36, Applicants respectfully submit that claim 36 patentably defines over Boveja.

Accordingly, Applicants respectfully submit that the claims that depend from claim 36, presently rejected claim 37 and allowable claims 38-41, also patentably define over the cited reference. Applicants request withdrawal of the rejection of claims 36 and 37 under 35 U.S.C. 103(a) and withdrawal of the objection to allowable claims 38-41.

Claims 8, 9, 67, and 68

Claims 9 and 68 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ruohonen. Claims 8 and 67 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ruohonen in view of Boveja. However, each of these claims depend, either directly or indirectly, from independent claims 1 or 59. Based on the foregoing reasons for allowability of claims 1 and 59, Applicants submit that claims 8, 9, 67, and 68 are likewise in condition for allowance.

Accordingly, Applicants respectfully submit that the present claims patentably define over the cited reference and requests withdrawal of the rejection of claims 8, 9, 67, and 68 under 35 U.S.C. 103(a).

CONCLUSION

For the foregoing reasons, Applicants respectfully submit that all of the claims of the present application patentably define over the prior art of record. Reconsideration of the Office Action and a Notice of Allowance are respectfully requested. In the event that the Examiner cannot allow the p resent application for any reason, the Examiner is encouraged to contact the undersigned attorney, Lori Swanson at (215) 564-8997 to discuss the resolution of any remaining issues.

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